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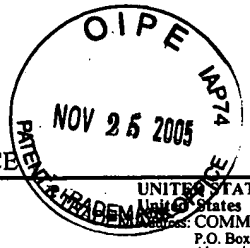

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,536	11/12/2003	Nicholas V. Perricone	00961-P0243B	6897

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SEP 12 2005

EXAMINER	
TANG, SON M	
ART UNIT	PAPER NUMBER
2632	

DATE MAILED: 09/08/2005

SPM SBS FILE 12/8/05 Amendment (3 mos.) DKT 3/8/06 Amendment (6 mos. S.P.) and

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/706,536	PERRICONE, NICHOLAS V.	
	Examiner	Art Unit	
	Son M. Tang	2632	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 May 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Arguments

1. Applicant's arguments with respect to claims 1-29 filed 5/16/05 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims **10-13, 16-18, 21-23 and 28** are rejected under 35 U.S.C. 102(b) as being anticipated by **Hirsch** [US 3,157,853].

Regarding claims **10-13, 16-18 and 21-22**: Hirsch discloses threat detection interface system for providing an alert signal to a user, the alert signal relating to an identified threat relative to an identified position of an object (met by distance between the aircraft and other aircraft or object, col. 3, lines 32-39 and col. 10, lines 71-74), the system comprising:

-a plurality of vibratory units (26, 27) selectively located to be in tactile communication with the user; and a control interface (met by computer components, see col. 6, lines 8-12) coupled to said plurality of vibratory units (26-27 in 50), said control interface generating a control signal based upon the identified threat, the control signal controlling said plurality of vibratory units based upon the identified threat, the control signal controlling said plurality of vibratory units and mapping (see Table and col. 5, lines 5-55) the threat information based on a

determined direction and distance of the identified threat relative to the object [as shown in Fig. 1 and 8-9, col. 3, lines 30-68, col. 6, lines 5-21 and col. 11, lines 1-47].

Regarding claim 23: Hirsch further discloses wherein said threat detection system is a RADAR system (105) see col. 11, lines 1-12.

Regarding claim 28: Hirsch further discloses the wherein said plurality of vibratory elements have a variable vibration frequency (col. 7, lines 10-20 and col. 11, lines 27-31) and the vibratory elements at a selected vibration frequency depending on the distance from the threat to the object [see col. 11, lines 31-36].

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 14-15, 19-20, 24-27 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirsch [US 3,157,853].

Regarding claim 14-15, 19-20 and 24-26: Hirsch discloses all the limitations as described above, Hirsch does not specifically disclose that the vibratory units is located in a seating device, harness, vest or user's back, however, Hirsch stated that the vibrator units is located in any suitable construction and adapted to be strapped and operatively associated with some part of pilot body [col. 7, lines 20-24 and col. 11, lines 42-45]. Therefore, it would have been obvious to one having ordinary skill in the art that the vibrator units can be located in any

appropriate location that provides convenience and optimize to the user, which including harness, vest and user's back or torso.

Regarding claim 27: Hirsch discloses all the limitations as described above, but lack of specifically shows that the element positioned in or near an axis extending from said body of the user axis extending from said body of the user to the threat. However, Hirsch further discloses wherein the vibrators of a threat mapped to vibratory elements positioned in an operator's hand, fore arm, finger of any other appropriate part of his body [col. 7, lines 20-30], therefore it is obvious to one having ordinary skill in the art at the time the inventions was made to have mapped the vibratory elements positioned in any appropriate location that optimize the sense of the threat to the user, including in or near an axis extending from said body to the threat.

Regarding claim 29: Hirsch discloses that all the limitations as described above, except for not specifically disclose that the vibratory elements have a fixed vibration frequency, and pulses of variable duration, with the duration of the pulse depending on the distance from the threat to the object, however, as long as the vibration elements provide threat indication to the user using any known frequency, such as fixed frequency and pulses for the same purpose is not a constitute of inventive step, but a design choice. Therefore, it would have been obvious of one having ordinary skill in the art at the time of the claimed invention, to employ a fixed frequency and pulses in the vibration elements system as an alternative tactile perceptible as user desired.

6. Claims **1-9** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hirsch** in view of **Morag** [US 4,713,651].

Regarding claim 1: Hirsch discloses threat detection interface system for providing an alert signal to a user, the alert signal relating to an identified threat relative to an identified position of an object (met by distance between the aircraft and other aircraft or object (see col. 3, lines 32-39 and col. 10, lines 71-74), the system comprising:

-a plurality of vibratory units (26, 27) selectively located to be in tactile communication with the user; and a control interface (met by computer components, see col. 6, lines 8-12) coupled to said plurality of vibratory units (26-27 in 50), said control interface generating a control signal based upon the identified threat, the control signal controlling said plurality of vibratory units based upon the identified threat, the control signal controlling said plurality of vibratory units and mapping (see Table and col. 5, lines 5-55) the threat information based on a determined direction and distance of the identified threat relative to the object [as shown in Fig. 1 and 8-9, col. 3, lines 30-68, col. 6, lines 5-21 and col. 11, lines 1-47], and the system includes a three axes (X,Y and Z) accelerometers for detecting and indicating change of longitudinal, vertical, lateral, pitching, rolling and yawing [see Fig. 1], Hirsch does not specifically disclose the vibratory units indicate a three-dimensional location of the identified threat relative to the vehicle. Morag teaches vibratory units indicate information relating to events in three-dimensional space location of the identified threat relative to the aircraft [as shown in Fig. 1-2, col. 3, lines 6-31]. It would have been obvious of one having ordinary skill in the art at the time of the claimed invention, to have a three-dimensional location indication as taught by Morag into the system of Hirsch, in order to provide a specific threat location on space.

Regarding claims 2-4: Refer to the consideration of rejection on claim 1 above.

Regarding claims 5-9: Refer to the consideration of rejection on claims 14-15 above.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ewart [US 4,008,456] discloses vibrators vest indicates target speed or threat, Nelkin [US 3,337,839], Testi [US 6,273,371] discloses pilot suit comprises tactile sensations actuators for aircraft critical condition, Vavra [US 4,484,191], Thorner et al. [US 5,565,840], Jones et al. [US 5,307,137], Hoisko [US 6,671,618], Kay [US Re 32,252].

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son M. Tang whose telephone number is (571)272-2962. The examiner can normally be reached on 4/9 First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel J. Wu can be reached on (571)272-2964. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Son Tang

BENJAMIN C. LEE
PRIMARY EXAMINER

Notice of References Cited

Application/Control No.	Applicant(s)/Patent Under Reexamination	
10/706,536	PERRICONE, NICHOLAS V.	
Examiner	Art Unit	Page 1 of 1
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U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-3,157,853	11-1964	JOSEPH HIRSCH	340/965
	B	US-4,713,651	12-1987	Morag, Meir	340/407.1
	C	US-4,008,456	02-1977	Ewart, Wade H.	340/407.1
	D	US-5,565,840	10-1996	Thorner et al.	340/407.1
	E	US-3,337,839	08-1967	ARTHUR NELKIN	367/105
	F	US-5,307,137	04-1994	Jones et al.	356/4.01
	G	US-6,671,618	12-2003	Hoisko, Jyrki	701/205
	H	US-RE32,252	09-1986	Kay, Leslie	367/102
	I	US-6,273,371	08-2001	Testi, Marco	244/223
	J	US-4,487,191	12-1984	Piteo, Michael J.	123/652
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.